

CASSELL'S  
POPULAR  
NATURAL HISTORY.

MAMMALIA.

V. FLESH-EATING ANIMALS  
(CONCLUDED).  
VI. THICK-SKINNED ANIMALS.  
VII. RUMINATING ANIMALS.

VIII. TOOTHLESS ANIMALS.  
IX. POUCH-BEARING ANIMALS.  
X. AQUATIC MAMMALS, OR  
CETACEA.

VOLUME II.

ILLUSTRATED WITH NEARLY THREE HUNDRED ENGRAVINGS.



LONDON:

CASSELL, PETTER, & GALPIN, LA BELLE SAUVAGE YARD, LUDGATE HILL, E.C. ;  
AND PARK BUILDINGS, NEW YORK.

and it may be added, that in the convexity of the posterior edge of the ascending portion it surpasses that even of the tapir, which, in this respect, is the nearest of all animals to the hyrax. In other particulars the skull approaches that of the rhinoceros; the molar teeth, in fact, are those of that animal in miniature, both as to form and number. There are in the tapir, as in the rhinoceros, no canines. The upper incisors, two in number, are long, triangular, pointed, stout, and separated from each other by a small interval. The lower incisors are four in number, set in close array, flat, and directed forwards. At first, their edges are notched; but they become smooth by use. The molars are seven on each side, above and below; but the first, which is small, falls out, being worn down, as soon as the last molar on each side has arisen; and in old individuals, the next is also frequently wanting. Several species belong to the present genus; but it will suffice to describe the creature which we have engraved.

#### THE SYRIAN DAMAN.\*

THIS animal inhabits Syria and the adjacent country, Abyssinia, and the northern line of Africa, and also, if the species be identical, which is, perhaps, questionable, the Cape, and Southern Africa. The differences, however, between the Syrian daman and the Cape daman† are so trifling, that Cuvier could establish no specific distinction.

The daman, the "coney" of Scripture, is a harmless creature, about the size of a rabbit; but it is of a brown colour, with smaller eyes, and a head more pointed; the fore feet are likewise short, and the hinder are long. Though it is known sometimes to burrow in the ground, yet it is so much attached to the rock, that it is seldom or never seen on the ground, or found among large stones in the mouth of caves, where it fixes its residence. Thus, as Solomon said, "The conies are but a feeble folk, yet make they their houses in the rocks."‡

#### THE RHINOCEROS.§

ANOTHER genus of pachydermes has now to be considered, comprised of several species. Africa, India, Java, and Sumatra, the lands of the forest and the jungle, are their native regions.

Of bulk scarcely less than the elephant, of massive proportions and enormous strength, their generic characters may be thus given:—The incisor teeth are altogether wanting, or are four in each jaw; the canines are also wanting; the molars are seven on each side, above and below; those of the upper jaw have a square surface, presenting several projecting lines, and those of the lower an irregular crown with projecting eminences. The feet are divided into three toes; the skin is naked, thick, and solid; the bones forming the vaulted roof of the nose very strong, and supporting one or two solid horns adhering solely to the skin, and composed of longitudinal fibres, appearing, on close inspection, an agglutinated mass of hairs. These horns are, indeed, only a cutaneous secretion, the close-set pores of the skin sending forth multitudes of fibres, which increase by the addition of fresh matter at the roots. Swampy situations, near large rivers and verdant plains, especially where water abounds, are the localities these animals frequent; herbs and the succulent shoots of shrubs form their food.

The Rhinoceros was known to the nations of antiquity; but the first one seen by modern Europeans appears to have been one sent from India to Emmanuel, king of Portugal, in 1513. Emmanuel intended it as a present to the Pope, but the animal, in an access of fury, sank the vessel on its passage.

In 1685, one was brought alive to England; another was shown throughout a great part of Europe in 1739; and a third, a female, was exhibited in 1741. In 1790, a rhinoceros was brought from the East Indies as a present to Mr. Dundas, who gave the animal away; but it was afterwards purchased by Pidecock for £700, who exhibited it in Exeter Change.

This animal, which was supposed to have been, at the time of his arrival, about five years old, exhibited no ferocious symptoms, and would even allow himself to be patted on the back or sides by

\* Hyrax Syriacus.

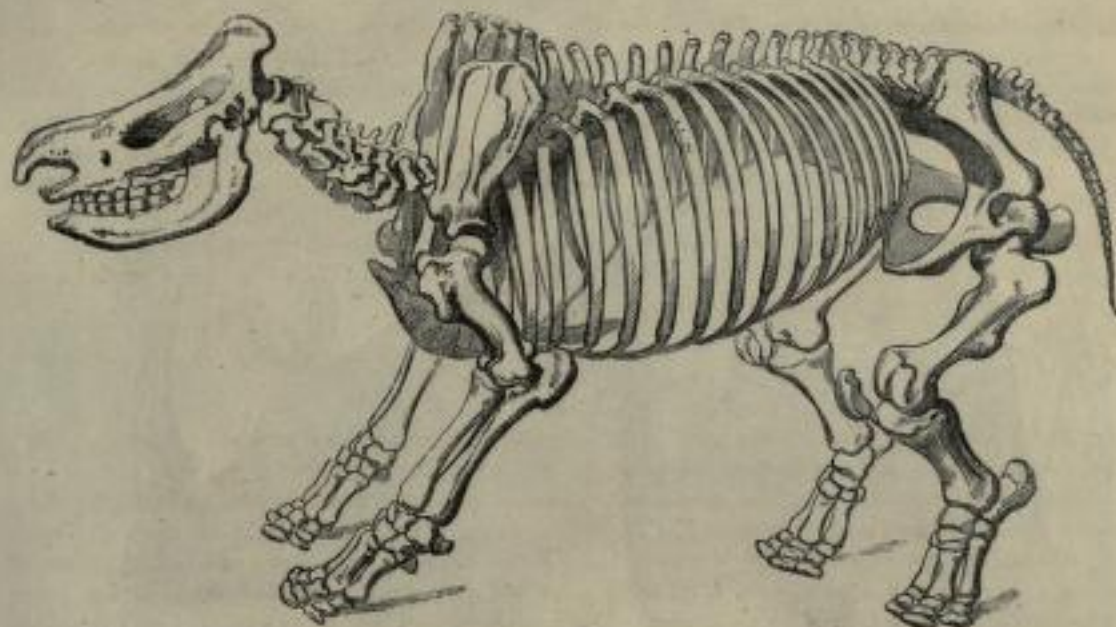
† H. Capensis.

‡ Proverbs xxx. 26.

§ Rhinoceros. Linnaeus. ρ, the nose; κερας, a horn.



strangers. His docility was about equal to that of a tolerably tractable pig; he would obey the orders of his keeper, to walk about the room, and exhibit himself to the numerous spectators who came to visit him. This animal usually ate every day twenty-eight pounds weight of clover, besides about the same weight of ship-biscuit, and a vast quantity of greens. His food he invariably seized in his long and projecting upper lip, and by it he conveyed it into his mouth. He was allowed, also, five pails of water twice or thrice a-day. This was put into a vessel that contained about three pails, which was filled up as the animal drank it; and he never ended his draught till the water was exhausted. He was fond of sweet wines, of which he would often drink three or four bottles in the course of a few hours. His voice was not much unlike the bleating of a calf. It was most commonly heard when the animal observed any person with fruit or other favourite food in his hand; and, in such cases, it seems to have been a mark of his anxiety to have it given him. In the month of October, 1792, as this rhinoceros was one day rising up very suddenly, he slipped the joint of one of his fore legs, which brought on an inflammation, which terminated in his death, about nine months afterwards. During



SKELETON OF THE RHINOCEROS.

his last illness the noise just referred to, but in a more melancholy tone, was almost constantly heard, occasioned, doubtless, by the agonies that he underwent. It is a singular fact, that of the incisions which were made, on the first attempts to restore the animal, through his thick and tough hide, the wounds were invariably found to be healed in the course of twenty-four hours. Of late years several of the same species have arrived in London. One of them, a fine, healthy animal, has long been living in the Zoological Gardens. The skeleton of the rhinoceros is of remarkable strength. We shall now look particularly at some distinct species.

#### THE INDIAN RHINOCEROS.\*

THIS animal leads a tranquil, indolent life in his native regions. Like the elephant, he prefers the marshy borders of lakes and rivers, or swampy woods and jungles, delighting to roll and wallow in the oozy soil, and plaster his skin with mud. He also swims with ease and vigour. Sluggish in his habitual movements, the rhinoceros wanders through his native plains with a heavy step, carrying his huge head so low that his nose almost touches the ground, and stopping at intervals to crop some favourite plant, or, in wanton play, to plough up the ground with his horn, throwing the mud and stones behind

\* *Rhinoceros Indicus.*

him. When roused he is a most formidable antagonist, and, such is the keenness of his senses of hearing and smell, that, unless you very cautiously approach him against the direction of the wind, it is almost impossible to take him by surprise. On the appearance of danger he generally retreats to his covert in the tangled and almost impenetrable jungle, but not always, and instances are recorded in

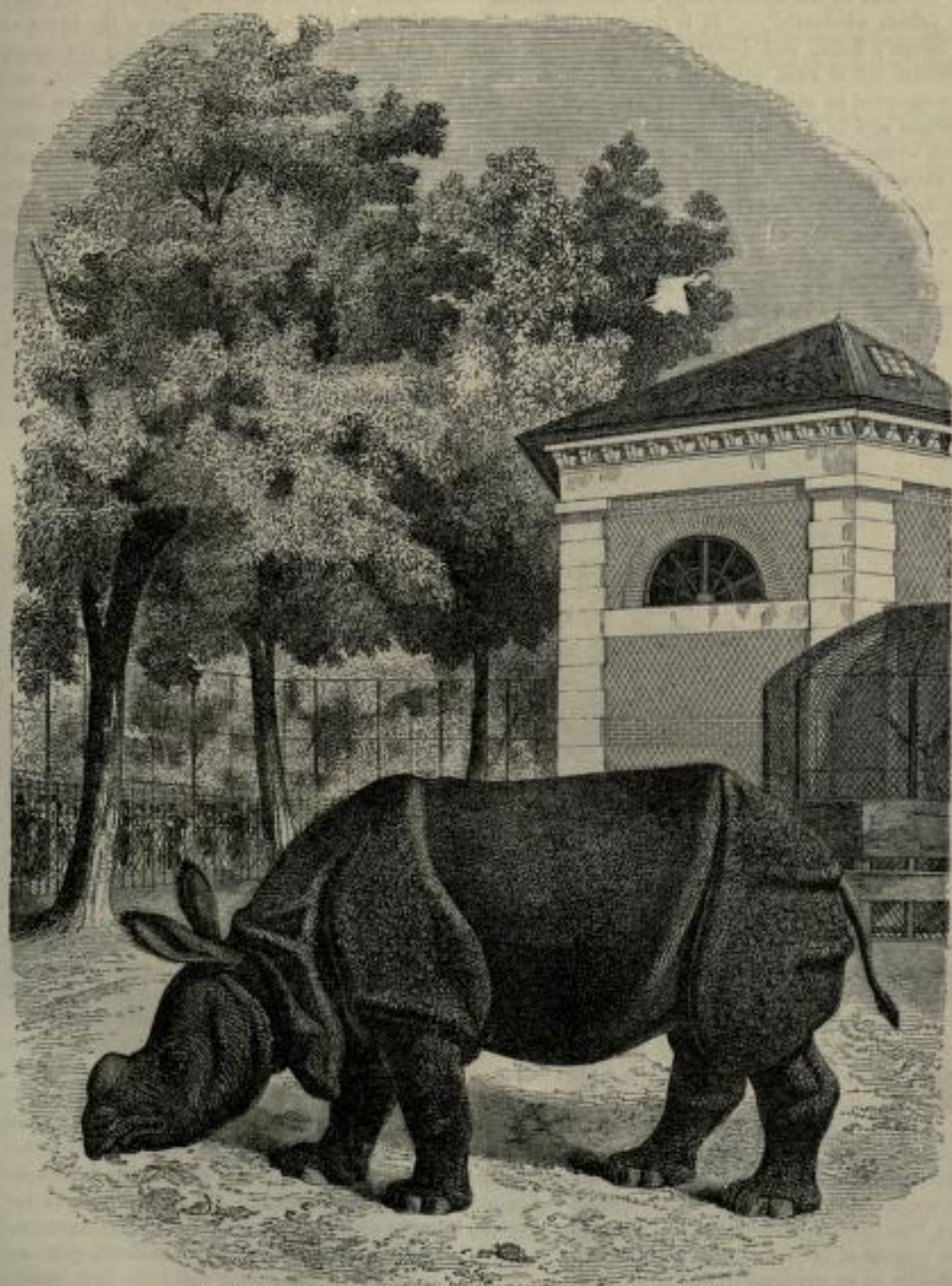


THE INDIAN RHINOCEROS.

which, sniffing up the air and throwing his head violently about, he has rushed with fury to the attack. There are, in fact, seasons in which the rhinoceros is very dangerous, and impetuously attacks every animal that attracts his notice, or ventures near his haunts, even the elephant himself.

The horn of the rhinoceros has been strangely regarded, from the earliest times, either as an





RHINOCEROS IN THE JARDIN DES PLANTES, PARIS.



antidote against poison, or as efficacious in detecting its presence, as well as useful in curing disease. It was used by the Indian kings at table, from the notion that "it sweats at the approach of any kind of poison whatever." "It is generally believed," says Thunberg, "that goblets made of the horns in a turner's lathe, will discover any poisonous draught that is put into them, by making the liquor ferment till it runs quite out of the goblet. Such goblets are frequently set in gold and silver, and are regarded as suitable presents to kings, persons of distinction, and particular friends; or else they are sold at a high price, sometimes at the rate of fifty-six dollars a goblet. When I tried these horns, both wrought and unwrought—both old and young horns—with several sorts of poison, weak as well as strong, I observed not the least motion or effervescence; and when a solution of corrosive sublimate, or other similar substance, was poured into one of these horns, there arose only a few bubbles, produced by the air that had been inclosed in the pores of the horn, and which was now disengaged from it." Water, drunk from such horns, was regarded as medicinal. In this case the water was to be stirred in the cup-like hollow at the base of the horn, with the point of an iron nail, till it became discoloured, in which state the patient was directed to drink it.

The strong deep folds into which the coarse skin is gathered in the cheeks neck, shoulders,



RHINOCEROS HUNT.

haunches, and thighs, are distinguishing marks of the Indian rhinoceros. The general colour of the skin is dusky black, with a slight tint of purple. Mr. Hodgson states that the female goes from seventeen to eighteen months with young, and produces one at a birth. He adds also, "It is believed that the animal lives for a hundred years; one taken of full size was kept at Katmandoo for thirty-five years without exhibiting any symptoms of decline. The young continues to suck for nearly two years: it has, for a month after birth, a pink suffusion over the dark colour proper to the mature hide." The female is desperate in the protection of her offspring.

Bishop Heber saw several of these animals at Lucknow, and remarked, "These are quiet, gentle animals, except that one of them has a feud with horses. . . . I should conceive that they might be available to carry burdens as well as the elephant, except that as their pace is still slower than his, their use could only be applicable to very great weights, and very gentle travelling." In another passage he says, "In passing through the city I saw two very fine hunting tigers, in silver chains, and a rhinoceros (the present of Lord Amherst to the Guicwar), which is so tame as to be ridden by a mahout, quite as patiently as an elephant."

A large rhinoceros, at the head of seven others, boldly attacked the elephants of a party of European gentlemen, and repeatedly brought them to the ground by the force of their blows. Mr.

Williamson states, that if a herd of elephants intrude suddenly on this formidable beast, they retreat without hazarding a conflict.

The Javanese rhinoceros\* is a less bulky animal than the Indian species, and, in proportion, more elevated in its limbs. The Sumatran rhinoceros† is by no means bold or savage; and one of the largest size has been seen to run away from a single dog.

A rhinoceros, which formed part of a menagerie in this country, was afterwards taken to Paris, where it drew much attention. It was still young, and habitually indicated a very mild disposition, being very obedient to its keeper, whose caresses it received with much satisfaction. It was subject, however, to violent fits of passion, and at such times it was dangerous to approach it. It then made prodigious efforts to break its chains and escape from its bondage; but the offer of bread and fruits seldom failed to soothe its most terrible passions.

Those persons found the most favour with it who ministered the most to its gormandising appe-



HEAD OF RHINOCEROS, BROUGHT TO ENGLAND BY THE REV. JOHN CAMPBELL.

tites; and, when they appeared, it exhibited its satisfaction and expectation by opening its mouth and extending to them its long upper lip. The narrow limits of the cage in which it was shut up did not allow it to manifest much intelligence. The great object of the keeper was to make it forget its strength, or forego its exercise: hence, nothing calculated to awaken its consciousness of power was required from it. To open its mouth, to move its head to the right or left, or to lift its leg, were the usual acts by which it was required to testify its obedience. Its great strength, and the fear that in one of its passions it might break its cage, insured to it the most mild and soothing treatment, and it was scrupulously rewarded for the least thing it was required to do. The distinction it made of persons, and the great attention it paid to everything which passed around, demonstrated that, in more favourable circumstances, its intelligence might have been more strikingly manifested.

\* *Rhinoceros Javanus*.

† *Rhinoceros Sumatranus*. Raffles.



of my wind, which at once alarmed him. Uttering a blowing noise, and erecting his insignificant yet saucy-looking tail, he wheeled about, leaving me master of the field, when I sent a bullet through his ribs to teach him manners."

The *Keitloa*\* is another species, differing from the common African rhinoceros. In the former,



TEETH OF RHINOCEROS OF JAVA.

the two horns are of equal, or nearly equal, length; in the latter, the posterior is never, in either sex, much beyond a third of the length of the anterior horn; the length of the head, in proportion to the depth, is very different in the two. The neck of *Rhinoceros Keitloa* is much longer than that of the other, and the position and character of the cuticular furrows destined to facilitate the lateral motions of the head are

very different. Other variations are observable in minor particulars.

Among the fossil relics of animals which, at some former period, have inhabited our globe, and after a quiet possession, generation succeeding generation, of their pasture-lands, have become, as it were, blotted out of the book of creation, those of the rhinoceros are extremely abundant—little less so, if at all, than those of the fossil elephant: they are as widely distributed as those of that animal, and occur in the same strata and the same localities.

The peculiarity of the next family of pachydermatous animals is, that the toes are equal, and somewhat resemble the cloven-footed and ruminant tribe, hereafter to be considered. M. Desmoulins, from an examination of the skulls and skeletons of hippopotami from Senegal and South Africa, considers that there are two distinct species.† As, however, the habits of both are precisely the same, and as the distinctive characters are founded on osteological minutiae only, we shall not treat them as different—more especially as the point is rather assumed than absolutely proved.

### THE HIPPOPOTAMUS.

HIPPOPOTAMUS,‡ the Roman name, of Greek origin, for the River-horse, is still retained by modern zoologists as the generic appellation of these animals. They are natives exclusively of Africa, where—though much more limited than formerly in the range of their habitat—they tenant the banks and beds of the larger rivers, and of the inland lakes from the Gariop to the upper Nile and its tributary branches. The hippopotamus is, however, not restricted to these, for it is marine as well as fluviatile. Dr. Smith thinks it is difficult to decide whether it prefers the river or the sea for its abode during the day. When there was an opportunity of choice, he found some selected the sea, and others the river.

Scarcely, if at all, inferior to the elephant in bulk, this massive animal is much lower in stature, from the shortness of its limbs. Its body, like an enormous barrel supported on four thick pillars, almost touches the ground; the head is ponderous; the muzzle is swollen; and the great, thick lips, studded with wire-like bristles, entirely conceal the projecting incisors of the lower jaw, and the huge curved tusks, or canines; the mouth is wide; the nostrils open on the top of the swollen muzzle; and the eyes, which are very small, are situated high on the head; hence, when in the water, the animal, by raising merely a small upper section of the head above the surface, can both breathe and look around—the body remaining submerged. The ears are small and pointed; the tail is short, and furnished with a few wiry bristles. The toes—four on each foot—are tipped with small hoofs. The hide is coarse, naked, and of great thickness.

This part is made into various articles, as shields, whips, and walking-sticks. The whips known in Egypt under the name of *korbadj* are made of its skin, and form an important article of trade

\* *Rhinoceros Keitloa*.

† *Hippopotamus Senegalensis*. *Hippopotamus Capensis*.

‡ From *hew* and *potam*, horse, and belonging to a river.